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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,364	03/15/2001	Yeshayahu Redler	1336	6159

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EXAMINER

SIMITOSKI, MICHAEL J

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/786,364	Applicant(s) REDLER, YESHAYAHU	
	Examiner Michael J Simitoski	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 12-15 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-15 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-6, 12-15 & 22 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The negative limitation “does not use removable media, such as a Smartcard” is contradictory to the specification. The specification on page 7, ¶5 states that the data can be stored in an EEPROM memory/Smartcard component and Fig. 3 shows a removable medium.
4. Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The negative limitation “does not use removable media, such as a Smartcard” is not described in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2134

6. Claims 1-6, 12-15 & 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 & 22, the limitation “said processed encoded data information providing a secure transaction when transmitted within the computer system, and when decrypted and decoded for use at a remote location” is neither a device/apparatus limitation nor an active method step, but recites a use of the claimed invention and is therefore the scope is unclear.

Regarding claim 1, the scope of “providing a secure transaction” when transmitted within the computer system is unclear; i.e. it is unclear what “transaction occurs”. *For the purposes of this Office Action, the limitation “said processed ... location” will be read as “said processed encoded data information is secured when transmitted within the computer system ...”.*

Regarding claim 22, the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Regarding claim 22, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 22, the negative limitation “does not use removable media” is vague and indefinite in a “comprising”-type claim.

7. Claim 15, as best understood, provides for the use of the device of claim 1, but, since the claim does not set forth any steps involved in the method/process, it is unclear what

method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced or functional apparatus limitations.

8. Claims 12-15 recite the limitation "said single integrated device" in line 1 of the claims. There is insufficient antecedent basis for this limitation in the claims. *For the purposes of this Office Action, "said single integrated device" is understood to refer to the "secure data entry peripheral device" or simply "device" of claim 1.*

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 & 22, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,517,569 to Clark.

Regarding claim 1, Clark discloses means for at least one of entry, collection and reading of data information/keys, controller means/I/O for encoding said data information for presentation (into binary) to the computer system, and means associated with said controller/encryption circuitry for processing said encoded/binary data information, said processed/encrypted encoded/binary data information providing a secure/encrypted transaction when transmitted within the computer system/PC, and when decrypted and decoded for use at a remote location/bank (col. 2, lines 19-48 & Fig. 1).

Regarding claim 22, Clark discloses performing at least one of entry, collection and reading of data information via standard data entry device/keyboard configured as a secure keyboard device, encoding said data information/keystrokes within said standard data entry device/keyboard for presentation to the computer system, and processing/encrypting, within said standard data entry device/keyboard, said encoded/binary data information by performing thereon at least one operation amongst operations including encryption, decryption, data manipulation and non-volatile storage, said processed/encrypted encoded/binary data information providing a secure/encrypted transaction when transmitted within the computer system/PC (col. 2, lines 19-48), and when decrypted and decoded for use at a remote location/host/bank (Fig. 1), wherein said encoding step is performed by a keyboard encoder/keyboard and said processing step is performed by an electronic device/encryption circuitry (col. 2, lines 42-48) capable of encrypting/decrypting and storing data entered via said keyboard (col. 2, lines 19-48), wherein said keyboard encoder/keyboard and said electronic device/encryption circuitry comprise a single integrated device/keyboard, and wherein said single integrated device/keyboard does not use removable media such as a Smartcard, security token (Fig. 1 & col. 2, lines 19-48). While Clark does not disclose a separate encoding step, it is inherent that the data/keystrokes are encoded into binary form.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2134

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3 & 12, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,987,155 to Dunn et al. (Dunn) in view of U.S. Patent 5,949,881 to Davis.

Regarding claims 1 & 3, Dunn discloses means/contact imager for reading of data information (col. 8, lines 15-16) and controller means/smart card for encoding/processing said data/biometric information for presentation to the computer system (col. 8, lines 19-22). Dunn further discloses transmitting biometric data to a central location for verification and discloses that a problem exists where a transmitted signal (used for verification) can be recorded and used later by an attacker (col. 2, lines 43-52). Dunn lacks means associated with the controller for processing said encoded data information by performing at least one of encryption, decryption, data manipulation and non-volatile storage and lacks decrypting and decoding the data at a remote location. However, Davis teaches that it is desirable to share a key between two nodes, such as a peripheral and computer, and encrypt and decrypt data between the devices so as to create a secure connection (col. 1, lines 15-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to perform encryption also on the data and to decrypt it at the computer and to perform an encoding/decoding process between the computer and a central verification server. One of ordinary skill in the art would have been motivated to perform such a modification to make the data incomprehensible to unauthorized recipients, as taught by Davis (col. 1, lines 15-30).

Regarding claim 12, Dunn, as modified above, lacks explicitly an EEPROM memory. However, Davis teaches that to store the shared key(s), an EEPROM can be used (col. 3, lines

59-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to store the secure information in an internal EEPROM. One of ordinary skill in the art would have been motivated to perform such a modification to store the key in an erasable programmable read-only memory, as taught by Davis (col. 3, lines 59-67).

13. Claim 2, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Davis, as applied to claim 1 above, in further view of U.S. Patent 5,748,888 to Angelo et al. (Angelo) in further view of U.S. Patent 5,848,231 to Teitelbaum et al. (Teitelbaum). Dunn, as modified above, lacks a secure mouse configuration. However, Angelo teaches that some programs can be configured to “sniff” mouse clicks (col. 2, lines 34-40), which is analogous to the capturing of biometric data, as described by Dunn. Further, Teitelbaum teaches that it is known to include a biometric sensor in mice (col. 1, line 65 – col. 2, line 5 & col. 12, lines 65-67) to automatically adjust settings for a user (col. 10, lines 12-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the biometric device, as modified above, as a secure mouse device. One of ordinary skill in the art would have been motivated to perform such a modification to secure mouse clicks against sniffing, as taught by Angelo (col. 2, lines 34-40) and to allow a user’s settings to be automatically adjusted, as taught by Teitelbaum (col. 1, line 65 – col. 2, line 5, col. 10, lines 12-18 & col. 12, lines 65-67).

14. Claim 4, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Davis in view of Angelo in view of Teitelbaum, as applied to claim 2 above, in further view of U.S. Patent 4,866,602 to Hall. Claim 4 is substantially equivalent to claim 2 and is rejected under similar rationale, except the claim further includes receiving data

Art Unit: 2134

via asynchronous communication means. Hall teaches that peripherals, such as mice, that use the RS-232C serial interface, operate on an asynchronous protocol (col. 2, lines 8-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to receive data via asynchronous communication means. One of ordinary skill in the art would have been motivated to perform such a modification to transmit data on the RS-232C serial interface, as taught by Hall (col. 2, lines 8-20).

15. Claim 5, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Davis in view of Angelo in view of Teitelbaum, as applied to claim 1 above, in further view of U.S. Patent 5,438,529 to Rosenberg et al. (Rosenberg). Claim 5 is substantially equivalent to claim 2 and is rejected under similar rationale, except the claim further includes a mouse interface card. Rosenberg teaches that it is well known in the art to connect a mouse to a computer system via a plug-in interface card that is coupled to the I/O channel (col. 5, lines 30-47). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to receive data via computer bus signals transferred through a mouse interface card. One of ordinary skill in the art would have been motivated to perform such a modification to connect a mouse to a computer system, as taught by Rosenberg (col. 5, lines 30-47).

16. Claim 6, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Davis in view of Angelo in view of Teitelbaum, as applied to claim 1 above, in further view of U.S. Patent 5,706,031 to Brendzel et al. (Brendzel). Claim 6 is substantially equivalent to claim 2 and is rejected under similar rationale, except the claim further includes a mini-keypad for data entry. Brendzel teaches that a telephone with a keypad

can be integrated with positioning device (mouse) to reduce clutter (col. 1, lines 24-46).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a mini-keypad in the mouse. One of ordinary skill in the art would have been motivated to perform such a modification to reduce clutter, as taught by Brendzel (col. 1, lines 24-46).

17. Claim 13, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Davis, as applied to claim 1 above, in further view of U.S. Patent 6,285,990 to Lee et al. (Lee). Dunn, as modified above, lacks the keys being a secure, integral part. Lee teaches that a key storage device and processor should be integrated and be tamper-proof to ensure the contents of the device may be read only by the authorized component (col. 5, lines 9-20). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include secure, protected encryption keys and data as an internal and integral non-removable element. One of ordinary skill in the art would have been motivated to perform such a modification to ensure that the contents of the device may be read only by an authorized component, as taught by Lee (col. 5, lines 9-20).

18. Claim 14, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, as applied to claim 1 above, in further view of U.S. Patent 6,226,749 to Carloganu et al. (Carloganu). Clark discloses that the keyboard/module receives commands (col. 7, lines 20-37), but lacks specifically a "command interpreter". However, Carloganu teaches that a secured command interpreter in a device/processor makes it more difficult for an attacker to gain access to secrets in the device (col. 21, lines 10-21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a secure command

Art Unit: 2134

interpreter. One of ordinary skill in the art would have been motivated to perform such a modification to make it more difficult for an attacker to gain access to secrets in the device, as taught by Carloganu (col. 21, lines 10-21).

19. Claim 15, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Davis, as applied to claim 1 above, in further view of U.S. Patent 6,208,746 to Musgrave. Dunn, as modified above, lacks preventing unauthorized use of software programs. However, Musgrave teaches that biometrics can be used to watermark software to enforce copyrights (col. 1, lines 15-23 & col. 2, lines 1-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to prevent the unauthorized use of software programs. One of ordinary skill in the art would have been motivated to perform such a modification to enforce copyrights, as taught by Musgrave (col. 1, lines 15-23 & col. 2, lines 1-30).

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (703)305-8191. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The examiner can also be reached on alternate Fridays from 6:45 a.m. – 3:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703)308-4789.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

Or faxed to:

Art Unit: 2134

(703)746-7239 (for formal communications intended for entry)

Or:

(703)746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 9, 2004


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